

REMARKS

Reconsideration of this application is requested.

Claims 1, 8, 10 and 11 are being amended in a way which is thought to improve the definition of the invention, taking into account the Examiner's objections under Section 112.

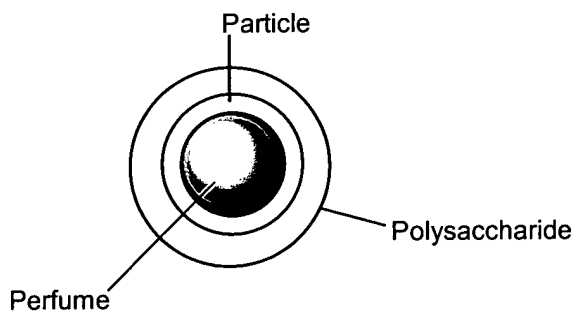
The Examiner has rejected claims 1 and 5-11 under Section 112, 2nd ¶, the Examiner stating that these claims are indefinite because "it is not clearly stated in the claims whether or not the polysaccharide conjugate comprising polysaccharides and a particle carrying perfume includes compositions thereof. It is noted in Claim 1 that the particle carrying perfume may be physically attached to the polysaccharide, which include compositions containing each of the components." The applicants do not understand the basis for the Examiner's objection, notably the Examiner's references to "compositions thereof" and "compositions containing each of the components". It is believed clear from the language of claim 1 that the applicants' conjugate is not simply a physical mixture of the three recited components. The claim language makes it clear that the polysaccharide is chemically or physically attached to a particle carrying perfume to provide the claimed conjugate.

In other words, the three recited components are all joined together, i.e. (1) particulate carrying perfume (2) and polysaccharide (3) attached physically or chemically to the particle, the polysaccharide being capable of binding to cellulose. The ability of the polysaccharide to bind to cellulose means that the three-component conjugate is bound in use, via the polysaccharide component to cellulose and thus "perfume" the cellulose.

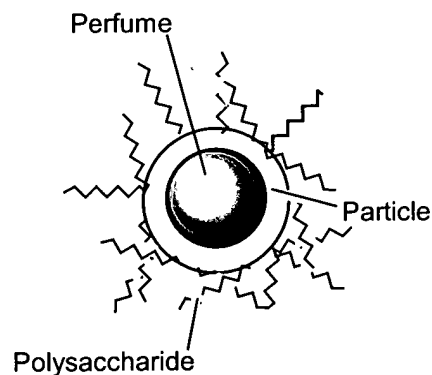
To reiterate, the applicants' conjugate includes a particle, e.g. of silica, particularly porous silica, organic polymer etc (see page 3, lines 10 to 11 of the applicants' specification), carrying perfume, to which is attached physically or chemically a polysaccharide selected from the specified list. The polysaccharides recited in present claim 1 confer to the particle carrying perfume a special affinity for cellulose or cellulose-containing surfaces, thus enabling the particles in-use to target and bind to cellulose, e.g. cotton and other cellulosic fabrics, paper, etc. (see page 7, lines 16 to 17).

Typical examples of the applicants' conjugate may be visualized schematically as follows:

Physical Attachment:



Chemical Attachment:



The conjugate is, therefore, not a composition in the sense that it includes polysaccharide, particle carrying perfume and cellulose, as individual components of the composition. The particle carrying perfume and polysaccharide of claim 1 are tied together in a special and defined manner, i.e. by being attached to each other physically or chemically. Moreover, the language "capable of binding to cellulose" is a functional limitation of the claim defining how the polysaccharide conjugate defined therein must behave in use.

The Examiner has also stated that the claims are indefinite because "it is not clearly indicated in the claims how the polysaccharide is bound to the cellulose. Is the binding via a covalent bond, ionic bond, etc. or does the polysaccharide and cellulose come together as a composition?"

In response to this last-mentioned point, the applicants submit that the claims are clear and definite as to how the polysaccharide associates with the cellulose when the conjugate is used with cellulosic material, i.e. the polysaccharide binds to the cellulose. It is not necessary to specify how the binding is accomplished. Bonding is bonding and those in the art would fully understand the applicants' claim language, i.e. the polysaccharide is bound to the cellulose. There is nothing indefinite with this terminology and those skilled in the art will know exactly what the claim language means.

Claim 11 has been amended to obviate the Examiner's antecedent basis objection to this claim.

Withdrawal of the Section 112, 2nd ¶ rejection is requested in view of the foregoing. However, it is to be noted that notwithstanding the foregoing, some amendments have been made in the claims in view of the Examiner's comments. Thus, in particular, reference to "polysaccharide" has been deleted from the description of the conjugate as this may have been confusing to the Examiner. The claimed conjugate is a conjugate of all three components recited in claim 1.

The Examiner is requested to reconsider the Section 102(e) rejection of claims 1 and 5-11 as anticipated by the newly cited Cottrell et al patent. This reference does not disclose the applicant's invention.

More specifically, Cottrell et al relate to absorbent solid compositions of matter comprising one or more polysaccharides of specified mean particle size, gel strength and absorbency. The polysaccharides can be prepared by a number of methods including; agglomerating fine material e.g. guar flour so that the final particle size exceeds the minimum specified, extruding fine material to give a particle size exceeding the specified minimum, or when using polygalactomannans e.g. guar gum, polygalactomannan splits are hydrated, ground to the desired mean particle size using conventional techniques known in the art and the ground particles dried (see column 5, line 42 to column 6 line 6). The solid polysaccharide material so prepared may be combined in a composition with other materials, of which cellulose fiber, cellulose fluff and cellulose grafted polymers are mentioned in passing as three of many possible materials, to provide potential synergistic absorbency properties (see column 7 lines 63 to 66).

It is clear from a reading of Cottrell as a whole, that what is disclosed by these patentees are simply solid absorbent particles of polysaccharide material, having particular physical properties. The particles of Cottrell et al are made up entirely of polysaccharide material. There is no disclosure of a polysaccharide chemically or physically attached to a particle carrying perfume as is required by present claim 1. As the Examiner points out, Cottrell et al mention the possibility of adding liquids e.g. fragrance, to the solid absorbent polysaccharide material to give e.g. a fragrance retention agent for use in cosmetics. However, by their nature, the polysaccharide material of Cottrell et al would absorb a fragrance to simply give a particle of polysaccharide material carrying perfume. Such a particle would not, in addition, have a polysaccharide as recited in present claim 1 physically or chemically attached to a

particle carrying perfume. The presently claimed invention is, therefore, clearly novel over Cottrell et al.

As evident from the above, Cottrell et al does not disclose all of the components of the applicants' instantly claimed conjugate. There is no disclosure in the reference of a particle carrying perfume, to which polysaccharide is physically or chemically attached. The reference simply discloses particles of polysaccharide material, not particles with polysaccharide material attached. The polysaccharide of the applicants' conjugate of present claim 1 is, in a sense, a further 'layer' attached to a particle carrying perfume.

In the circumstances, it is submitted that the applicants' invention as defined by claims 1 and 5-11 is not anticipated by Cottrell et al. Furthermore, for essentially the same reasons, the applicants submit that their claims define subject matter which is not in any sense obvious from Cottrell et al. Accordingly, the Examiner is requested to not only withdraw the Section 102(e) rejection as set out in Section 7, pages 3-4 of the action, but the Section 103(a) rejections of claims 1, 6-9 and 11 and claim 10, as set out in Sections 10 and 12 of the action, as well. Nothing in Cottrell et al would motivate one in the art to make the changes needed in Cottrell et al to reach the applicants' invention. The Examiner's casual reference to "explicit motivation" at page 6, end of ¶ 10 of the action, finds no basis whatsoever in Cottrell or otherwise. There is, in brief, no motivation in the art to provide the applicants' invention.

In short, it would not have been obvious from Cottrell et al to one of ordinary skill in the art at the time the invention was made to attach a polysaccharide, by either physical or chemical means, to a particle carrying perfume and to use the resulting conjugate to target and bind the particle to cellulose. As discussed in the introduction to the present specification, it has been found that the polysaccharides recited in present

claim 1 have the ability to bind to cellulose, e.g. by polysaccharide:polysaccharide interactions. This interaction occurs at multiple sites along the backbone of the polysaccharide. Particles carrying perfume may be used in laundry powders to typically deliver perfume to an article. Therefore, the finding by the present inventors that the particular polysaccharides recited in claim 1 have an affinity for cellulose even when attached to large entities such as perfume carrying particles is surprising. If anything, it would have been predicted that polysaccharide:polysaccharide binding would have been disrupted by the attachment of such large entities as particles carrying perfumes to cellulose-binding polysaccharides. The presently claimed invention is, therefore, not obvious from Cottrell et al. Accordingly, reconsideration and withdrawal of the rejections based on Cottrell et al is requested.

The Examiner is also requested to reconsider the Section 103(a) rejection of claims 1, 7-9 and 11 as unpatentable over Ibe. This reference does not in any way make the applicants' invention, as defined by the rejected claims, obvious.

More specifically, Ibe relates to a cosmetic composition comprising a neutral polysaccharide obtained from acid-fast bacterium of the genus *Mycobacterium*. The neutral polysaccharide is composed mainly of arabinogalactan, arabinomannan, mannan and  $\alpha$ -glucan, and at least one of such neutral polysaccharides is used in a cosmetic composition. Examples 3 and 6 disclose an emollient lotion and an emollient cream, respectively, including the polysaccharide mannan and perfume.

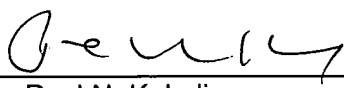
The Examiner contends that these examples of Ibe embrace the applicants' conjugate of the rejected claims. However, this position is plainly incorrect. There is no implicit or explicit disclosure in Ibe of a particle carrying perfume. The perfume of Examples 3 and 6 is free perfume, i.e. it is not absorbed, adsorbed, impregnated, or

encapsulated in a particle or anything else. Moreover, even if Ibe had disclosed a particle carrying perfume, which it does not, should a polysaccharide and particle carrying perfume, amongst other ingredients, be added as separate entities to a composition, it does not follow that a polysaccharide conjugate in accordance with the present claims would result. The attachment of the polysaccharide to the particle, or otherwise, would depend on a number of factors including the nature of the particles and surface properties of the particles in a composition which are likely to alter relative to free particles. The instant claims therefore differ from Ibe in that they define a conjugate comprising a polysaccharide selected from recited materials, which is chemically or physically attached to a particle carrying perfume. The presently claimed invention is, therefore, both novel and unobvious from Ibe.

For the reasons noted above, the applicants submit that their claims are in proper form and define subject matter which is both novel and unobvious. Accordingly, favorable reconsideration with allowance of the claims is requested.

Respectfully submitted,

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APPENDIX  
Version with Markings to Show Changes Made

IN THE CLAIMS

The claims are amended as follows:

1. (Twice Amended) A [polysaccharide] conjugate comprising a polysaccharide selected from the group consisting of xyloglucans, glucomannans, mannans, galactomannans,  $\beta$  (1-3), (1-4) glucan and the xylan family incorporating glucurono-, arabino- and glucuronoarabinoxylan, which is chemically or physically attached to a particle carrying perfume, the polysaccharide [conjugate] being capable of binding said conjugate to cellulose.

8. (Twice Amended) A product incorporating a [polysaccharide] conjugate in accordance with claim 1.

10. (Thrice Amended) A method of targeting binding of a particle carrying perfume to cellulose which comprises providing a [polysaccharide] conjugate in accordance with claim 1 and target binding said conjugate through said polysaccharide to said cellulose.

11. (Amended) A product comprising a [polysaccharide] conjugate according to claim 1 bound through said polysaccharide to cellulose so as to thereby bind said [perfume carrying] particle carrying said perfume to said cellulose.